

REMARKS

Reconsideration and withdrawal of the Examiner's rejection of the above-identified application is respectfully requested in view of the foregoing amendments and following remarks. Claims 8 and 9 remain in the application. Claims 8 and 9 have been amended. No new matter has been added.

The Examiner objected to the specification and drawings, stating that the planet wheels are located in the circumferential direction, and that this must be shown in the drawings and described in the specification. Applicant has amended the drawings, specification and claims to reflect that the planet wheels are located around the circumference of the carrier. The Examiner further objected to the drawings stating that reference sign 12 was not mentioned in the description. Applicant submits that reference sign 12, corresponding to an internal gear, is described at page 3 of the specification as amended.

The Examiner rejected claim 9 under 35 USC 103 as being unpatentable over *Ridgely '967* and rejected claim 8 under 35 USC 103 as being unpatentable over *Shirokoshi '968*. Applicant respectfully traverses.

In the case of a planetary gear mechanism with the internal gears with 108 gear teeth, only a maximum translation of  $i = 4$  is possible in a gear stage having four planetary gears, according to previous knowledge and calculation methods.

Here, the inventor has found that in the case of four planetary gears, a translation ratio of  $i = 5.5$  is also capable of functioning, and at the same time, an even number total translation ratio can be achieved. In a three-stage gear mechanism,  $i = 4$  is selected in the second stage and  $i = 5.5$  is selected in the third stage. Four planetary gears in a gear stage result in a particularly uniform load distribution and a high level of resistance of the gear mechanism to twisting, in this range. These properties are particularly important in the last gear stage of a gear mechanism that translates to the slow side, in which the highest torques occur.

The unexpected advantage of the present invention, lies in the fact that despite the use of four planetary gears within a planetary gear carrier of a gear stage with a translation ratio  $i = 5.5$ , the use of which is desirable for a uniform and good distribution of force, an increase in the translation, from  $i = 4$  to  $i = 5.5$ , which would not have been considered possible, can surprisingly be achieved. In the case of an internal gear tooth

number of  $z = 108$  and four planetary gears in a gear stage, it was not possible to achieve translation ratios of  $i = 3$  or  $i = 6$ , for example. This result was not taught or suggested by the cited references.

In conclusion, the present invention and the pending remaining claims are believed to be patentable over all the prior art references applied by the Patent Examiner whether considered singly or in any combination thereof. A prompt notification of allowability is respectfully requested.

Respectfully submitted,

Thomas BAYER-3

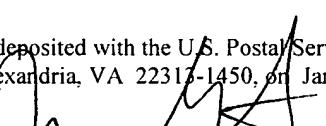
By:

  
Edward R. Freedman  
Allison C.Collard, Reg No.22,532  
Edward R.Freedman, Reg.No.26,048  
Attorneys for Applicant

COLLARD & ROE, P.C.  
1077 Northern Boulevard  
Roslyn, New York 11576  
(516) 365-9802

Enclosures: (1) Two (2) drawing sheets: FIG. 2 (replacement sheet) and FIG. 2a;  
(2) Copy of Petition for 2 Month Extension of Time.

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on January 23, 2004.

  
Maria Guastella